SUBJECT INDEX

VOLUME 36, PART II

A

Absorption.

The Cone Method for Determining the Absorption by Sand. D. O. Woolf, 411. Discussion, 423.

Accelerated Tests.

The Effect of Mineral Fillers on the Serviceability of Coating Asphalts. O. G. Strieter, 486. Discussion, 493.

Aggregate.

Elastic and Thermal Expansion Properties of Concrete as Affected by Similar Properties of the Aggregate. L. H. Koenitzer, 393. Discussion, 407.

Aging.

Increase in Viscosity of Asphalts with Time. R. N. Traxler and H. E. Schweyer, 544. Discussion, 551.

Air Conditioning.

Conditioning of Insulating Materials for Test. Robert Burns, 600. Discussion, 614.

Alloys.

Ductility Testing of Aluminum and Aluminum Alloy Sheet. R. L. Templin, 239.

The Effect of the Addition of Lead on the Endurance Limit of a Certain Tin-Base Bearing Alloy. John N. Kenyon, 194. Discussion, 198.

The Forming Properties of Some Non-Ferrous Sheet Metals. G. R. Gohn, 207. Discussion, 221.

Some Creep Tests on Lead and Lead Alloys. Albert J. Phillips, 170. Discussion, 183.

The Spectrographic Determination of Magnesium in Aluminum Alloys. W. R. Koch, 292. Discussion, 299.

Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.

Alloy Steel.

Damage and Overstress in the Fatigue of Ferrous Materials. H. W. Russell and W. A. Welcker, Jr., 118. Discussion, 136.

Summary of Proceedings of the Pittsburgh Regional Meeting—Symposium on High-Strength Constructional Metals, 1.

Aluminum.

Ductility Testing of Aluminum and Aluminum Alloy Sheet. R. L. Templin, 239.

The Forming Properties of Some Non-Ferrous Sheet Metals. G. R. Gohn, 207. Discussion, 221.

Slow-Bend and Impact Tests of Notched Bars at Low Temperatures. H. F. Moore, H. B. Wishart and S. W. Lyon, 110. Discussion, 116.

The Spectrographic Determination of Magnesium in Aluminum Alloys. W. R. Koch, 292. Discussion, 299.

Summary of Proceedings of the Pittsburgh Regional Meeting—Symposium on High-Strength Constructional Metals, 1.

Apparatus.

See **Testing Apparatus.**

Asphalt.

Compression Testing of Asphalt Paving Mixtures. Roland Vokac, 552.

The Effect of Mineral Fillers on the Serviceability of Coating Asphalts. O. G. Strieter, 486. Discussion, 493.

A Further Study of the Heterogeneity of Asphalt—a Quantitative Method. G. L. Oliensis, 494. Discussion, 508.

Increase in Viscosity of Asphalts with Time. R. N. Traxler and H. E. Schweyer, 544. Discussion, 551.

Measurement of High Viscosity—a Rapid Method. R. N. Traxler and H. E. Schweyer, 518. Discussion, 530.

The Susceptibility of Asphalts to Temperature Change. H. E. Schweyer, C. E. Coombs and R. N. Traxler, 531. Discussion, 539.

Automotive Parts.

Significance of Laboratory Tests in Evaluating Automotive Rubber Parts. J. J. Allen, 636. Discussion, 648.

B

Bearing Metal.
The Effect of the Addition of Lead on the Endurance Limit of a Certain Tin-Base Bearing Alloy. John N. Kenyon, 194. Discussion, 198.

Bearing Surface.
Effect of Departure from Planeness of Bearing Surfaces on the Compressive Strength of 2-in. Mortar Cubes. J. R. Dwyer, 351.

Bearing Value.
Internal Stability of Granular Materials. William S. Housel, 426. Discussion, 459.

Belting.
The Relation Between Laboratory Tests and Service Life of Rubber Hose and Belting. W. L. Smith and Arthur W. Carpenter, 653.

Bend Test.
Ductility Testing of Aluminum and Aluminum Alloy Sheet. R. L. Templin, 239.
Impact Bend Testing of Wire. W. J. Farmer and D. A. S. Hale, 276. Discussion, 291.
Slow-Bend and Impact Tests of Notched Bars at Low Temperatures. H. F. Moore, H. B. Wishart and S. W. Lyon, 110. Discussion, 116.

Boiler Water.
Determination of Dissolved Oxygen in Boiler Feed Water. Alfred H. White, Claude H. Leland and Dale W. Button, 697. Discussion, 714.
Effect of Solution Composition on the Failure of Boiler Steel Under Static Stress at 250 C. W. C. Schroeder, A. A. Berk and Everett P. Partridge, 721. Discussion, 751.
The Rate of Reaction of Sodium Sulfite with Oxygen Dissolved in Water. R. M. Hitchens and R. W. Towne, 687. Discussion, 695.
The Use of Solubility Data to Control the Deposition of Sodium Sulfate or Its Complex Salts in Boiler Waters. W. C. Schroeder, A. A. Berk and Everett P. Partridge, 755. Discussion, 769.

Brass.
Effect of Iron Impurities on the Annealing of High Brass. W. A. Gibson and J. H. Doss, 201.
The Forming Properties of Some Non-Ferrous Sheet Metals. G. R. Gohn, 207. Discussion, 221.
Slow-Bend and Impact Tests of Notched Bars at Low Temperatures. H. F. Moore, H. B. Wishart and S. W. Lyon, 110. Discussion, 116.

Bridge Wire.
Failure of Heat-Treated Steel Wire in Cables of the Mt. Hope, R. I., Suspension Bridge. W. H. Swanger and G. F. Wohlgemuth, 21. Discussion, 76.

Brinell Hardness.
See **Hardness Testing.**

Bronze.
The Forming Properties of Some Non-Ferrous Sheet Metals. G. R. Gohn, 207. Discussion, 221.

C

Cable.
Failure of Heat-Treated Steel Wire in Cables of the Mt. Hope, R. I., Suspension Bridge. W. H. Swanger and G. F. Wohlgemuth, 21. Discussion, 76.
The Testing of Rubber Insulated Wires and Cables. Dean Harvey, 671. Discussion, 684.

Cast Iron.
Damage and Overstress in the Fatigue of Ferrous Materials. H. W. Russell and W. A. Welcker, Jr., 118. Discussion, 136.

Cement.
Effect of Departure from Planeness of Bearing Surfaces on the Compressive Strength of 2-in. Mortar Cubes. J. R. Dwyer, 351.
A Hydrometer Method for Determining the Fineness of Portland-Puzzolan Cements. S. B. Biddle Jr. and Alexander Klein, 310. Discussion, 325.
The Influence of Low Curing Temperatures on the Hardening of Cement Mortars. S. A. Mironoff, 357. Discussion, 369.
Petrographic Studies of Hydrated Cements. L. S. Brown and R. W. Carlson, 332.

Charpy Impact.
See **Impact Testing.**

Chemical Analysis.
Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.

Chromium Steel.
See **Alloy Steel.**

Clay.
Testing and Design of Stabilized Soil Mixtures. C. A. Hogentogler, Jr., 469. Discussion, 484.
Cold-Drawn Wire.
Failure of Heat-Treated Steel Wire in Cables of the Mt. Hope, R. I., Suspension Bridge. W. H. Swanger and G. F. Wohlgemuth, 21. Discussion, 76.
Compaction.
Testing and Design of Stabilized Soil Mixtures. C. A. Hogentogler, Jr., 469. Discussion, 484.
Compression Testing.
Compression Testing of Asphalt Paving Mixtures. Roland Vokac, 552.
Effect of Departure from Planeness of Bearing Surfaces on the Compressive Strength of 2-in. Mortar Cubes. J. R. Dwyer, 351.
The Effect of Testing Speed on Strength and Elastic Properties of Concrete. Paul G. Jones and F. E. Richart, 380. Discussion, 392.
Concrete.
The Effect of Testing Speed on Strength and Elastic Properties of Concrete. Paul G. Jones and F. E. Richart, 380. Discussion, 392.
Elastic and Thermal Expansion Properties of Concrete as Affected by Similar Properties of the Aggregate. L. H. Koenitzer, 393. Discussion, 407.
Rating the Characteristics of Fresh Concrete. Harmer E. Davis and J. W. Kelly, 372.
Conditioning.
Conditioning of Insulating Materials for Test. Robert Burns, 600. Discussion, 614.
Cone Method.
The Cone Method for Determining the Absorption by Sand. D. O. Woolf, 411. Discussion, 423.
Constructional Metals.
Summary of Proceedings of the Pittsburgh Regional Meeting—Symposium on High-Strength Constructional Metals, 1.
Copper.
Effect of Time on Tensile Properties of Hard-Drawn Copper Wire. Albert J. Phillips and A. A. Smith, Jr., 263. Discussion, 274.
Flexure and Torsion Testing of Copper Wire. S. E. Borgeson, 249. Discussion, 259.
Slow-Bend and Impact Tests of Notched Bars at Low Temperatures. H. F. Moore, H. B. Wishart and S. W. Lyon, 110. Discussion, 116.
Summary of Proceedings of the Pittsburgh Regional Meeting—Symposium on High-Strength Constructional Metals, 1.
Corrosion-Resistant Steels.
Summary of Proceedings of the Pittsburgh Regional Meeting—Symposium on High-Strength Constructional Metals, 1.
Creep Tests.
A Direct-Load Creep-Test Machine. J. J. Curran and F. H. Morehead, 161.
The Effect of Testing Speed on Strength and Elastic Properties of Concrete. Paul G. Jones and F. E. Richart, 380. Discussion, 392.
Effect of Time on Tensile Properties of Hard-Drawn Copper Wire. Albert J. Phillips and A. A. Smith, Jr., 263. Discussion, 274.
Influence of Time at 1000 F. on the Characteristics of Carbon Steel. A. E. White, C. L. Clark and R. L. Wilson, 139. Discussion, 157.
Some Creep Tests on Lead and Lead Alloys. Albert J. Phillips, 170. Discussion, 183.

D

Design.
Significance of Material Tests and of Design Tests upon Electrical Insulating Materials. L. E. Barringer, 592. Discussion, 598.
Dielectric Constant.
Edge Correction in the Determination of Dielectric Constant. Harvey L. Curtis and Arnold H. Scott, 815. Discussion, 829.
Diffraction.
Discussion on Stress-Relief Annealing Monel Metal, 231.
Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.
Ductility.
Ductility Testing of Aluminum and Aluminum Alloy Sheet. R. L. Templin, 239.
Durability.
The Effect of Mineral Fillers on the Serviceability of Coating Asphalts. O. G. Strieter, 486. Discussion, 493.

E

Edge Correction.
Edge Correction in the Determination of Dielectric Constant. Harvey L. Curtis and Arnold H. Scott, 815. Discussion, 829.

Effect of Temperature.
See **Temperature, Effect of.**

Elasticity.
See **Compression Testing; Tension Testing.**

Electrical Insulating Materials.
Significance of Material Tests and of Design Tests upon Electrical Insulating Materials. L. E. Barringer, 592. Discussion, 598.

Electrical Testing.
Edge Correction in the Determination of Dielectric Constant. Harvey L. Curtis and Arnold H. Scott, 815. Discussion, 829.

Embrittlement.
Effect of Solution Composition on the Failure of Boiler Steel Under Static Stress at 250 C. W. C. Schroeder, A. A. Berk and Everett P. Partridge, 721. Discussion, 751.
The Use of Solubility Data to Control the Deposition of Sodium Sulfate or Its Complex Salts in Boiler Waters. W. C. Schroeder, A. A. Berk and Everett P. Partridge, 755. Discussion, 769.

Enamel.
Methods of Determining Gloss. Richard S. Hunter, 783.
The Testing of Organic Finishes. A. E. Schuh, 770. Discussion, 780.

Endurance Testing.
See **Fatigue.**

Exposure Tests.
See **Weathering.**

Extensometer.
Applications of the Wedge Extensometer. Wilbur M. Wilson, 807. Discussion, 813.

F

Fatigue.
Damage and Overstress in the Fatigue of Ferrous Materials. H. W. Russell and W. A. Welcker, Jr., 118. Discussion, 136.
The Effect of the Addition of Lead on the Endurance Limit of a Certain Tin-Base Bearing Alloy. John N. Kenyon, 194. Discussion, 198.
Failure of Heat-Treated Steel Wire in Cables of the Mt. Hope, R. I., Suspension Bridge. W. H. Swanger and G. F. Wohlgemuth, 21. Discussion, 76.

Feed Water.
Determination of Dissolved Oxygen in Boiler Feed Water. Alfred H. White, Claude H. Leland and Dale W. Button, 697. Discussion, 714.
Effect of Solution Composition on the Failure of Boiler Steel Under Static Stress at 250 C. W. C. Schroeder, A. A. Berk and Everett P. Partridge, 721. Discussion, 751.
The Rate of Reaction of Sodium Sulfite with Oxygen Dissolved in Water. R. M. Hitchens and R. W. Towne, 687. Discussion, 695.
The Use of Solubility Data to Control the Deposition of Sodium Sulfate or Its Complex Salts in Boiler Waters. W. C. Schroeder, A. A. Berk and Everett P. Partridge, 755. Discussion, 769.

Fineness.
A Hydrometer Method for Determining the Fineness of Portland-Puzzolan Cements. S. B. Biddle Jr. and Alexander Klein, 310. Discussion, 325.
Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.

Flexure Testing.
Flexure and Torsion Testing of Copper Wire. S. E. Borgeson, 249. Discussion, 259.

Flow.
Effect of Time on Tensile Properties of Hard-Drawn Copper Wire. Albert J. Phillips and A. A. Smith, Jr., 263. Discussion, 274.

Fluoroscopy.
Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.

Footwear.
The Testing of Rubber Footwear. W. E. Glancy, 630.

Forming Properties.
The Forming Properties of Some Non-Ferrous Sheet Metals. G. R. Gohn, 207. Discussion, 221.

G

Galvanized Wire.
Failure of Heat-Treated Steel Wire in Cables of the Mt. Hope, R. I., Suspension Bridge. W. H. Swanger and G. F. Wohlgemuth, 21. Discussion, 76.

Gamma Ray.
Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.

Glass.
Developing American Glass. Edgar Marburg Lecture. Arthur L. Day, 5.

Gloss.
Methods of Determining Gloss. Richard S. Hunter, 783.

Granular Materials.
The Cone Method for Determining the Absorption by Sand. D. O. Woolf, 411. Discussion, 423.
Internal Stability of Granular Materials. William S. Housel, 426. Discussion, 459.
Testing and Design of Stabilized Soil Mixtures. C. A. Hogentogler, Jr., 469. Discussion, 484.

H

Hardness Testing.
Slow-Bend and Impact Tests of Notched Bars at Low Temperatures. H. F. Moore, H. B. Wishart and S. W. Lyon, 110. Discussion, 116.

Heat Treatment.
Effect of Iron Impurities on the Annealing of High Brass. W. A. Gibson and J. H. Doss, 201.
Failure of Heat-Treated Steel Wire in Cables of the Mt. Hope, R. I., Suspension Bridge. W. H. Swanger and G. F. Wohlgemuth, 21. Discussion, 76.
Stress-Relief Annealing High-Strength Monel Metal Plate. Peter R. Kosting, 222. Discussion, 231.

Heterogeneity.
A Further Study of the Heterogeneity of Asphalt—a Quantitative Method. G. L. Oliensis, 494. Discussion, 508.

High Temperature Testing.
See **Temperature, Effect of.**

Hose.
The Relation Between Laboratory Tests and Service Life of Rubber Hose and Belting. W. L. Smith and Arthur W. Carpenter, 653.

Hydrometer.
A Hydrometer Method for Determining the Fineness of Portland-Puzzolan Cements. S. B. Biddle Jr. and Alexander Klein, 310. Discussion, 325.

I

Impact Testing.
Damage and Overstress in the Fatigue of Ferrous Materials. H. W. Russell and W. A. Welcker, Jr., 118. Discussion, 136.
High-Velocity Tension-Impact Tests. H. C. Mann, 85. Discussion, 98.
Impact Bend Testing of Wire. W. J. Farmer and D. A. S. Hale, 276. Discussion, 291.
Slow-Bend and Impact Tests of Notched Bars at Low Temperatures. H. F. Moore, H. B. Wishart and S. W. Lyon, 110. Discussion, 116.

Instruments.
See **Testing Apparatus.**

Insulating Materials.
Conditioning of Insulating Materials for Test. Robert Burns, 600. Discussion, 614.
The Testing of Rubber Insulated Wires and Cables. Dean Harvey, 671. Discussion, 684.

Iron.
Effect of Iron Impurities on the Annealing of High Brass. W. A. Gibson and J. H. Doss, 201.

Izod Impact.
See **Impact Testing.**

L

Lacquer.
Methods of Determining Gloss. Richard S. Hunter, 783.
The Testing of Organic Finishes. A. E. Schuh, 770. Discussion, 780.

Lead.
The Effect of the Addition of Lead on the Endurance Limit of a Certain Tin-Base Bearing Alloy. John N. Kenyon, 194. Discussion, 198.
Some Creep Tests on Lead and Lead Alloys. Albert J. Phillips, 170. Discussion, 183.

Low Temperature Testing.
See **Temperature, Effect of.**

M

Magnesium.
The Spectrographic Determination of Magnesium in Aluminum Alloys. W. R. Koch, 292. Discussion, 299.
Summary of Proceedings of the Pittsburgh Regional Meeting—Symposium on High-Strength Constructional Metals, 1.

Malleable Iron.
Damage and Overstress in the Fatigue of Ferrous Materials. H. W. Russell and W. A. Welcker, Jr., 118. Discussion, 136.

Marburg Lecture.
Developing American Glass. Edgar Marburg Lecture. Arthur L. Day, 5.

Metallography.
Failure of Heat-Treated Steel Wire in Cables of the Mt. Hope, R. I., Suspension Bridge. W. H. Swanger and G. F. Wohlgemuth, 21. Discussion, 76.
Influence of Time at 1000 F. on the Characteristics of Carbon Steel. A. E. White, C. L. Clark and R. L. Wilson, 139. Discussion, 157.

Mineral Fillers.
The Effect of Mineral Fillers on the Serviceability of Coating Asphalts. O. G. Strieter, 486. Discussion, 493.

Modulus of Elasticity.
See also **Compression Testing; Tension Testing.**
Elastic and Thermal Expansion Properties of Concrete as Affected by Similar Properties of the Aggregate. L. H. Koenitzer, 393. Discussion, 407.

Moisture Content.
Testing and Design of Stabilized Soil Mixtures. C. A. Hogentogler, Jr., 469. Discussion, 484.

Monel Metal.
Stress-Relief Annealing High-Strength Monel Metal Plate. Peter R. Kosting, 222. Discussion, 231.

Mortar.
Effect of Departure from Planeness of Bearing Surfaces on the Compressive Strength of 2-in. Mortar Cubes. J. R. Dwyer, 351.
The Influence of Low Curing Temperatures on the Hardening of Cement Mortars. S. A. Mironoff, 357. Discussion, 369.

N

Nickel Alloys.
The Forming Properties of Some Non-Ferrous Sheet Metals. G. R. Gohn, 207. Discussion, 221.
Summary of Proceedings of the Pittsburgh Regional Meeting—Symposium on High-Strength Constructional Metals, 1.

Notch, Effect of.
Damage and Overstress in the Fatigue of Ferrous Materials. H. W. Russell and W. A. Welcker, Jr., 118. Discussion, 136.
Slow-Bend and Impact Tests of Notched Bars at Low Temperatures. H. F. Moore, H. B. Wishart and S. W. Lyon, 110. Discussion, 116.

O

Oil.
Testing for Sludge Formation in Mineral Transformer Oil. F. M. Clark and E. A. Snyder, 568. Discussion, 588.

Open-Hearth Steel.
Failure of Heat-Treated Steel Wire in Cables of the Mt. Hope, R. I., Suspension Bridge. W. H. Swanger and G. F. Wohlgemuth, 21. Discussion, 76.

Organic Finishes.
Methods of Determining Gloss. Richard S. Hunter, 783.
The Testing of Organic Finishes. A. E. Schuh, 770. Discussion, 780.

P

Paint.
Methods of Determining Gloss. Richard S. Hunter, 783.
The Testing of Organic Finishes. A. E. Schuh, 770. Discussion, 780.

Paper.
Methods of Determining Gloss. Richard S. Hunter, 783.

Particle Size.
A Hydrometer Method for Determining the Fineness of Portland-Puzzolan Cements. S. B. Biddle Jr. and Alexander Klein, 310. Discussion, 325.
Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.

Paving Materials.
Compression Testing of Asphalt Paving Mixtures. Roland Vokac, 552.
Petrographic Studies.
Petrographic Studies of Hydrated Cements. L. S. Brown and R. W. Carlson, 332.
Plasticity.
Testing and Design of Stabilized Soil Mixtures. C. A. Hogentogler, Jr., 469. Discussion, 484.

R

Radiography.
Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.
Reflection.
Methods of Determining Gloss. Richard S. Hunter, 783.
Regional Meeting Papers.
Summary of Proceedings of the Pittsburgh Regional Meeting—Symposium on High-Strength Constructional Metals, 1.
Relative Humidity.
Conditioning of Insulating Materials for Test. Robert Burns, 600. Discussion, 614.
Rubber.
Symposium on the Limitations of Laboratory and Service Tests in Evaluating Rubber Products:
Methods of Evaluating Tire Performance. R. D. Evans, 620.
The Testing of Rubber Footwear. W. E. Glancy, 630.
Significance of Laboratory Tests in Evaluating Automotive Rubber Parts. J. J. Allen, 636. Discussion, 648.
The Relation Between Laboratory Tests and Service Life of Rubber Hose and Belting. W. L. Smith and Arthur W. Carpenter, 653.
The Testing of Rubber Insulated Wires and Cables. Dean Harvey. 671. Discussion, 684.

S

Sand.
The Cone Method for Determining the Absorption by Sand. D. O. Woolf, 411. Discussion, 423.
Internal Stability of Granular Materials. William S. Housel, 426. Discussion, 459.
Sheets.
Ductility Testing of Aluminum and Aluminum Alloy Sheet. R. L. Templin, 239.
The Forming Properties of Some Non-Ferrous Sheet Metals. G. R. Gohn, 207. Discussion, 221
Significance of Tests.
Significance of Material Tests and of Design Tests upon Electrical Insulating Materials. L. E. Barringer, 592. Discussion, 598.
Slow-Bend Test.
Slow-Bend and Impact Tests of Notched Bars at Low Temperatures. H. F. Moore, H. B. Wishart and S. W. Lyon, 110. Discussion, 116.
Sludge.
Testing for Sludge Formation in Mineral Transformer Oil. F. M. Clark and E. A. Snyder, 568. Discussion, 588.
Soils.
Internal Stability of Granular Materials. William S. Housel, 426. Discussion, 459.
Testing and Design of Stabilized Soil Mixtures. C. A. Hogentogler, Jr., 469. Discussion, 484.
Spectrographic Analysis.
Developments in the Quantitative Analysis of Solutions by Spectroscopic Means. O. S. Duffendack and K. B. Thomson, 301.
The Spectrographic Determination of Magnesium in Aluminum Alloys. W. R. Koch, 292. Discussion, 299.
Spot Test.
A Further Study of the Heterogeneity of Asphalt—a Quantitative Method. G. L. Oliensis, 494. Discussion, 508.
Stability.
Internal Stability of Granular Materials. William S. Housel, 426. Discussion, 459.
Testing and Design of Stabilized Soil Mixtures. C. A. Hogentogler, Jr., 469. Discussion, 484.
Stainless Steel.
See **Alloy Steel.**
Steel.
Damage and Overstress in the Fatigue of Ferrous Materials. H. W. Russell and W. A. Welcker, Jr., 118. Discussion, 136.
Effect of Solution Composition on the Failure of Boiler Steel Under Static Stress at 250 C. W. C. Schroeder, A. A. Berk and Everett P. Partridge, 721. Discussion, 751.

Steel (*Continued*):
Influence of Time at 1000 F. on the Characteristics of Carbon Steel. A. E. White, C. L. Clark and R. L. Wilson, 139. Discussion, 157.
Slow-Bend and Impact Tests of Notched Bars at Low Temperatures. H. F. Moore, H. B. Wishart and S. W. Lyon, 110. Discussion, 116.
Summary of Proceedings of the Pittsburgh Regional Meeting—Symposium on High-Strength Constructional Metals, 1.
The Use of Solubility Data to Control the Deposition of Sodium Sulfate or Its Complex Salts in Boiler Waters. W. C. Schroeder, A. A. Berk and Everett P. Partridge, 755. Discussion, 769.

Stone.
See **Aggregate.**

Stress-Relief.
Stress-Relief Annealing High-Strength Monel Metal Plate. Peter R. Kosting, 222. Discussion, 231.

T

Temperature, Effect of.
Elastic and Thermal Expansion Properties of Concrete as Affected by Similar Properties of the Aggregate. L. H. Koenitzer, 393. Discussion, 407.
The Influence of Low Curing Temperatures on the Hardening of Cement Mortars. S. A. Mironoff, 357. Discussion, 369.
Influence of Time at 1000 F. on the Characteristics of Carbon Steel. A. E. White, C. L. Clark and R. L. Wilson, 139. Discussion, 157.
Slow-Bend and Impact Tests of Notched Bars at Low Temperatures. H. F. Moore, H. B. Wishart and S .W. Lyon, 110. Discussion, 116.
Stress-Relief Annealing High-Strength Monel Metal Plate. Peter R. Kosting, 222. Discussion, 231.
The Susceptibility of Asphalts to Temperature Change. H. E. Schweyer, C. E. Coombs and R. N. Traxler, 531. Discussion, 539.
Testing for Sludge Formation in Mineral Transformer Oil. F. M. Clark and E. A. Snyder, 568. Discussion, 588.

Tension Testing.
Effect of Time on Tensile Properties of Hard-Drawn Copper Wire. Albert J. Phillips and A. A. Smith, Jr., 263. Discussion, 274.
Failure of Heat-Treated Steel Wire in Cables of the Mt. Hope, R. I., Suspension Bridge. W. H. Swanger and G. F. Wohlgemuth, 21. Discussion, 76.
High-Velocity Tension-Impact Tests. H. C. Mann, 85. Discussion, 98.
Slow-Bend and Impact Tests of Notched Bars at Low Temperatures. H. F. Moore, H. B. Wishart and S. W. Lyon, 110. Discussion, 116.
Stress-Relief Annealing High-Strength Monel Metal Plate. Peter R. Kosting, 222. Discussion, 231.

Testing Apparatus.
Applications of the Wedge Extensometer. Wilbur M. Wilson, 807. Discussion, 813.
Developments in the Quantitative Analysis of Solutions by Spectroscopic Means. O. S. Duffendack and K. B. Thomson, 301.
A Direct-Load Creep-Test Machine. J. J. Curran and F. H. Morehead, 161.
Edge Correction in the Determination of Dielectric Constant. Harvey L. Curtis and Arnold H. Scott, 815. Discussion, 829.
Flexure and Torsion Testing of Copper Wire. S. E. Borgeson, 249. Discussion, 259.
High-Velocity Tension-Impact Tests. H. C. Mann, 85. Discussion, 98.
Impact Bend Testing of Wire. W. J. Farmer and D. A. S. Hale, 276. Discussion, 291.
Measurement of High Viscosity—a Rapid Method. R. N. Traxler and H. E. Schweyer, 518. Discussion, 530.
Methods of Determining Gloss. Richard S. Hunter, 783.
The Relation Between Laboratory Tests and Service Life of Rubber Hose and Belting. W. L. Smith and Arthur W. Carpenter, 653.
Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.

Testing, Methods of.
Applications of the Wedge Extensometer. Wilbur M. Wilson, 807. Discussion, 813.
Compression Testing of Asphalt Paving Mixtures. Roland Vokac 552.
The Cone Method for Determining the Absorption by Sand. D. O. Woolf, 411. Discussion, 423.

Determination of Dissolved Oxygen in Boiler Feed Water. Alfred H. White, Claude H. Leland and Dale W. Button, 697. Discussion, 714.

Developments in the Quantitative Analysis of Solutions by Spectroscopic Means. O. S. Duffendack and K. B. Thomson, 301.

Discussion on Stress-Relief Annealing Monel Metal, 231.

Edge Correction in the Determination of Dielectric Constant. Harvey L. Curtis and Arnold H. Scott, 815. Discussion, 829.

Flexure and Torsion Testing of Copper Wire. S. E. Borgeson, 249. Discussion, 259.

A Further Study of the Heterogeneity of Asphalt—a Quantitative Method. G. L. Oliensis, 494. Discussion, 508.

A Hydrometer Method for Determining the Fineness of Portland-Puzzolan Cements. S. B. Biddle Jr. and Alexander Klein, 310. Discussion, 325.

Measurement of High Viscosity—a Rapid Method. R. N. Traxler and H. E. Schweyer, 518. Discussion, 530.

Methods of Determining Gloss. Richard S. Hunter, 783.

Petrographic Studies of Hydrated Cements. L. S. Brown and R. W. Carlson, 332.

Significance of Material Tests and of Design Tests upon Electrical Insulating Materials. L. E. Barringer, 592. Discussion, 598.

The Spectrographic Determination of Magnesium in Aluminum Alloys. W. R. Koch, 292. Discussion, 299.

Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.

Symposium on the Limitations of Laboratory and Service Tests in Evaluating Rubber Products:

Method of Evaluating Tire Performance. R. D. Evans, 620.

The Testing of Rubber Footwear. W. E. Glancy, 630.

Significance of Laboratory Tests in Evaluating Automotive Rubber Parts. J. J. Allen, 636. Discussion, 648.

The Relation Between Laboratory Tests and Service Life of Rubber Hose and Belting. W. L. Smith and Arthur W. Carpenter, 653.

The Testing of Rubber Insulated Wires and Cables. Dean Harvey, 671. Discussion, 684.

Testing and Design of Stabilized Soil Mixtures. C. A. Hogentogler, Jr., 469. Discussion, 484.

Testing for Sludge Formation in Mineral Transformer Oil. F. M. Clark and E. A. Snyder, 568. Discussion, 588.

The Testing of Organic Finishes. A. E. Schuh, 770. Discussion, 780.

Tin.

The Effect of the Addition of Lead on the Endurance Limit of a Certain Tin-Base Bearing Alloy. John N. Kenyon, 194. Discussion, 198.

Tires.

Methods of Evaluating Tire Performance. R. D. Evans, 620.

Torsion Testing.

Flexure and Torsion Testing of Copper Wire. S. E. Borgeson, 249. Discussion, 259.

Transformer Oil.

Testing for Sludge Formation in Mineral Transformer Oil. F. M. Clark and E. A. Snyder, 568. Discussion, 588.

V

Varnish.

The Testing of Organic Finishes. A. E. Schuh, 770. Discussion, 780.

Velocity.

High-Velocity Tension-Impact Tests. H. C. Mann, 85. Discussion, 98.

Viscosity.

Increase in Viscosity of Asphalts with Time. R. N. Traxler and H. E. Schweyer, 544. Discussion, 551.

Measurement of High Viscosity—a Rapid Method. R. N. Traxler and H. E. Schweyer, 518. Discussion, 530.

The Susceptibility of Asphalts to Temperature Change. H. E. Schweyer, C. E. Coombs and R. N. Traxler, 531. Discussion, 539.

Volume Change.

See also **Temperature, Effect of.**

The Effect of Testing Speed on Strength and Elastic Properties of Concrete. Paul G. Jones and F. E. Richart, 380. Discussion, 392.

Elastic and Thermal Expansion Properties of Concrete as Affected by Similar Properties of the Aggregate. L. H. Koenitzer, 393. Discussion, 407.

W

Water.
Determination of Dissolved Oxygen in Boiler Feed Water. Alfred H. White, Claude H. Leland and Dale W. Button, 697. Discussion, 714.
Effect of Solution Composition on the Failure of Boiler Steel Under Static Stress at 250 C. W. C. Schroeder, A. A. Berk and Everett P. Partridge, 721. Discussion, 751.
The Rate of Reaction of Sodium Sulfite with Oxygen Dissolved in Water. R. M. Hitchens and R. W. Towne, 687. Discussion, 695.
The Use of Solubility Data to Control the Deposition of Sodium Sulfate or Its Complex Salts in Boiler Waters. W. C. Schroeder, A. A. Berk and Everett P. Partridge, 755. Discussion, 769.
Weathering.
The Effect of Mineral Fillers on the Serviceability of Coating Asphalts. O. G. Strieter, 486. Discussion, 493.
Wedge Extensometer.
Applications of the Wedge Extensometer. Wilbur M. Wilson, 807. Discussion, 813.
Welding.
Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.
Wire.
Effect of Time on Tensile Properties of Hard-Drawn Copper Wire. Albert J. Phillips and A. A. Smith, Jr., 263. Discussion, 274.
Failure of Heat-Treated Steel Wire in Cables of the Mt. Hope, R. I., Suspension Bridge. W. H. Swanger and G. F. Wohlgemuth, 21. Discussion, 76.
Flexure and Torsion Testing of Copper Wire. S. E. Borgeson, 249. Discussion, 259.
Impact Bend Testing of Wire. W. J. Farmer and D. A. S. Hale, 276. Discussion, 291.
The Testing of Rubber Insulated Wires and Cables. Dean Harvey, 671. Discussion, 684.
Wrought Iron.
Damage and Overstress in the Fatigue of Ferrous Materials. H. W. Russell and W. A. Welcker, Jr., 118. Discussion, 136.

X

X-ray.
Discussion on Stress-Relief Annealing Monel Metal, 231.
Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods. 3.

AUTHOR INDEX

VOLUME 36, PART II

A

Adams, R. C., Jr.
Discussion, 714.

Allen, J. J.
Significance of Laboratory Tests in Evaluating Automotive Rubber Parts, 636.
Discussion, 651.

Austin, C. R.
Discussion, 157.

B

Bardwell, R. C.
Discussion, 718, 719.

Barrett, Charles S.
X-ray Diffraction Equipment and Methods. Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.

Barringer, L. E.
Significance of Material Tests and of Design Tests upon Electrical Insulating Materials, 592.
Discussion, 616.

Bates, P. H.
Discussion, 330, 369.

Beasley, Milton R.
Discussion, 493.

Berk, A. A.
Effect of Solution Composition on the Failure of Boiler Steel Under Static Stress at 250 C., 721.
The Use of Solubility Data to Control the Deposition of Sodium Sulfate or Its Complex Salts in Boiler Waters, 755.
Discussion, 753.

Betty, B. B.
Discussion, 183.

Biddle, S. B., Jr.
A Hydrometer Method for Determining the Fineness of Portland-Puzzolan Cements, 310.
Discussion, 330.

Bingham, E. C.
Discussion, 530, 540.

Borgeson, S. E.
Flexure and Torsion Testing of Copper Wire, 249.
Discussion, 261, 274, 291.

Bowman, J. J.
Alloys of Aluminum and Magnesium. Summary of Proceedings of the Pittsburgh Regional Meeting—Symposium on High-Strength Constructional Metals, 1.

Brace, P. H.
Discussion, 237, 260.

Brown, L. S.
Petrographic Studies of Hydrated Cements, 332.

Burchfield, W. F.
Discussion, 221.

Burmister, D. M.
Discussion, 484.

Burns, Robert.
Conditioning of Insulating Materials for Test, 600.
Discussion, 618.

Button, Dale W.
Determination of Dissolved Oxygen in Boiler Feed Water, 697.

C

Cameron, G. Harvey.
The X-ray Determination of Particle Size. Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 4.

Carlson, R. W.
Petrographic Studies of Hydrated Cements, 332.

Carpenter, Arthur W.
The Relation Between Laboratory Tests and Service Life of Rubber Hose and Belting, 653.
Discussion, 648, 651.

Chadbourn, R. W.
Discussion, 684.
Clark, C. L.
Influence of Time at 1000 F. on the Characteristics of Carbon Steel, 139.
Discussion, 159.
Clark, D. S.
Discussion, 98.
Clark, F. M.
Testing for Sludge Formation in Mineral Transformer Oil, 568.
Discussion, 591.
Clark, George L.
The Applications of the X-ray Diffraction Method to Non-Metallic Materials. Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 4.
Coe, J. P.
Discussion, 651.
Colburn, D. S.
Discussion, 370.
Cone, Edwin F.
Carbon and Low-Alloy Steels. Summary of Proceedings of the Pittsburgh Regional Meeting—Symposium on High-Strength Constructional Metals, 1.
Cook, Earnshaw.
Foundry Applications of Radiography. Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.
Coombs, C. E.
The Susceptibility of Asphalts to Temperature Change, 531.
Cowan, W. A.
Discussion, 184.
Crampton, D. K.
Discussion, 274.
Crawford, C. A.
Discussion, 231.
Curran, J. J.
A Direct-Load Creep-Test Machine, 161.
Curtis, Harvey L.
Edge Correction in the Determination of Dielectric Constant, 815.
Discussion, 598, 829.

D

Dätwyler, G.
Discussion, 98.
Daugherty, T. H.
Discussion, 717.
Davey, Wheeler P.
Chemical Analysis by X-ray Diffraction Methods. Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 4.
Davis, C. H.
Alloys of Copper. Summary of Proceedings of the Pittsburgh Regional Meeting—Symposium on High-Strength Constructional Metals, 1.
Davis, Harmer E.
Rating the Characteristics of Fresh Concrete, 372.
Day, Arthur L.
Developing American Glass: Edgar Marburg Lecture, 5.
de Forest, A. V.
Discussion, 76.
Dehmel, R. C.
Discussion, 829.
Dike, P. H.
Discussion, 616.
Dix, E. H., Jr.
Alloys of Aluminum and Magnesium. Summary of Proceedings of the Pittsburgh Regional Meeting—Symposium on High-Strength Constructional Metals, 1.
Doss, J. H.
Effect of Iron Impurities on the Annealing of High Brass, 201.
Duffendack, O. S.
Developments in the Quantitative Analysis of Solutions by Spectroscopic Means, 301.
Dwyer, J. R.
Effect of Departure from Planeness of Bearing Surfaces on the Compressive Strength of 2-in. Mortar Cubes, 351.

E

Emery, F. H.
Discussion, 299.
Evans, R. D.
Methods of Evaluating Tire Performance, 620.

F

Farmer, F. M.
Discussion, 598, 617.
Farmer, W. J.
Impact Bend Testing of Wire, 276.

Fuller, T. S.
Discussion, 159.
Fuller, W. R.
Discussion, 781.

G

Geiger, G. F.
Alloys of Nickel. Summary of Proceedings of the Pittsburgh Regional Meeting—Symposium on High-Strength Constructional Metals, 1.
Gensamer, M.
Discussion, 84.
Gibson, W. A.
Effect of Iron Impurities on the Annealing of High Brass, 201.
Gilkey, H. J.
Discussion, 407.
Glancy, W. E.
The Testing of Rubber Footwear, 630.
Gohn, G. R.
The Forming Properties of Some Non-Ferrous Sheet Metals, 207.
Gran, J. R.
Discussion, 326.
Grossmann, M. A.
Discussion, 291.

H

Hale, D. A. S.
Impact Bend Testing of Wire, 276.
Discussion, 291.
Hanna, W. C.
Discussion, 325.
Hansen, H. I.
Discussion, 100.
Hanson, C. F.
Discussion, 615.
Harvey, Dean.
The Testing of Rubber Insulated Wires and Cables, 671.
Discussion, 599.
Herschel, W. H.
Discussion, 425.
Hitchens, R. M.
The Rate of Reaction of Sodium Sulfite with Oxygen Dissolved in Water, 687.
Discussion, 696.
Hodge, J. C.
Radiography in the Welding Shop. Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.
Hogentogler, C. A., Jr.
Testing and Design of Stabilized Soil Mixtures, 469.
Housel, William S.
Internal Stability of Granular Materials, 426.
Discussion, 464.
Hubbard, Prévost.
Discussion, 551.
Hunter, Richard S.
Methods of Determining Gloss, 783.

I

Ince, C. R.
Discussion, 186.

J

Jones, Paul G.
The Effect of Testing Speed on Strength and Elastic Properties of Concrete, 380.

K

Karelitz, G. B.
Discussion, 198.
Kelly, J. W.
Rating the Characteristics of Fresh Concrete, 372.
Kenyon, John N.
The Effect of the Addition of Lead on the Endurance Limit of a Certain Tin-Base Bearing Alloy, 194.
Discussion, 199.
Klein, Alexander.
A Hydrometer Method for Determining the Fineness of Portland-Puzzolan Cements, 310.
Discussion, 330.
Koch, W. R.
The Spectrographic Determination of Magnesium in Aluminum Alloys, 292.
Discussion, 299, 300.
Koenitzer, L. H.
Elastic and Thermal Expansion Properties of Concrete as Affected by Similar Properties of the Aggregate, 393.
Discussion, 410.
Kosting, Peter R.
Stress-Relief Annealing High-Strength Monel Metal Plate, 222.
Discussion, 237.

Krynine, D. P.
Discussion, 459.

L

Law, Leroy M.
Discussion, 515.
Leland, Claude H.
Determination of Dissolved Oxygen in Boiler Feed Water, 697.
Lester, H. H.
The Problem of Radiographic Inspection. Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.
Lewis, R. H.
Discussion, 508.
Lyon, S. W.
Slow-Bend and Impact Tests of Notched Bars at Low Temperatures, 110.

M

Mackenzie, K. G.
Discussion, 493.
Mann, H. C.
High-Velocity Tension-Impact Tests, 85.
Discussion, 107, 116.
McCarthy, B. L.
Discussion, 83.
McDermet, J. R.
Discussion, 718.
McKesson, C. L.
Discussion, 541.
McPherson, A. T.
Discussion, 650.
Miller, J. S., Jr.
Discussion, 542.
Mironoff, S. A.
The Influence of Low Curing Temperatures on the Hardening of Cement Mortars, 357.
Mochel, Norman L.
Gamma-ray Radiography and Its Relation to X-ray Radiography. Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.
Moore, H. F.
Slow-Bend and Impact Tests of Notched Bars at Low Temperatures, 110.
Discussion, 83, 100, 116, 136, 198, 260, 392.
Morehead, F. H.
A Direct-Load Creep-Test Machine, 161.
Morrison, I. F.
Discussion, 460.
Mudge, W. A.
Discussion, 232.

N

Nelson, H. A.
Discussion, 780.
Norton, John T.
Applications of X-ray Methods to Problems of Cold Work, Preferred Orientation, and Recrystallization. Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 4.
The Principles of the Radiographic Process. Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.
Nuckolls, A. H.
Discussion, 686.

O

Oliensis, G. L.
A Further Study of the Heterogeneity of Asphalt—a Quantitative Method, 494.
Discussion, 513, 515, 516.

P

Partridge, Everett P.
Effect of Solution Composition on the Failure of Boiler Steel Under Static Stress at 250 C., 721.
The Use of Solubility Data to Control the Deposition of Sodium Sulfate or Its Complex Salts in Boiler Waters, 755.
Discussion, 753.
Patterson, A. L.
The X-ray Determination of Particle Size. Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 4.
Paul, Ira.
Discussion, 423.
Pearson, J. C.
Discussion, 325.
Petrey, A. W.
Discussion, 299.
Phillips, Albert J.
Effect of Time on Tensile Properties of Hard-Drawn Copper Wire, 263.
Some Creep Tests on Lead and Lead Alloys, 170.
Discussion, 188, 275.

Pilling, N. B.
Discussion, 813.
Powell, E. B.
Discussion, 751.

R

Richart, F. E.
The Effect of Testing Speed on Strength and Elastic Properties of Concrete, 380.
Rogers, T. H.
Discussion, 493, 512, 514, 551.
Roller, P. S.
Discussion, 329.
Russell, H. W.
Damage and Overstress in the Fatigue of Ferrous Materials, 118.

S

Salomon, T.
Discussion, 589.
Sayre, M. F.
Discussion, 104.
Schatzel, R. A.
Discussion, 274, 685.
Schroeder, W. C.
Effect of Solution Composition on the Failure of Boiler Steel Under Static Stress at 250 C., 721.
The Use of Solubility Data to Control the Deposition of Sodium Sulfate or Its Complex Salts in Boiler Waters, 755.
Discussion, 753.
Schuh, A. E.
The Testing of Organic Finishes, 770.
Discussion, 782.
Schweyer, H. E.
Increase in Viscosity of Asphalts with Time, 544.
Measurement of High Viscosity—a Rapid Method, 518.
The Susceptibility of Asphalts to Temperature Change, 531.
Scott, Arnold H.
Edge Correction in the Determination of Dielectric Constant, 815.
Discussion, 829.
Seeman, Herman E.
Miscellaneous Applications of Radiography and Fluoroscopy. Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.
Sheen, R. T.
Discussion, 752.
Smith, A. A., Jr.
Effect of Time on Tensile Properties of Hard-Drawn Copper Wire, 263.
Discussion, 275.
Smith, E. B.
Discussion, 103.
Smith, W. L.
The Relation Between Laboratory Tests and Service Life of Rubber Hose and Belting, 653.
Snyder, E. A.
Testing for Sludge Formation in Mineral Transformer Oil, 568.
Discussion, 591.
Speller, F. N.
Discussion, 695.
Stäger, Hans.
Discussion, 588.
Strieter, O. G.
The Effect of Mineral Fillers on the Serviceability of Coating Asphalts, 486.
Discussion, 493.
Summers, R. E.
Discussion, 769.
Swanger, W. H.
Failure of Heat-Treated Steel Wire in Cables of the Mt. Hope, R. I., Suspension Bridge, 21.
Swartz, C. E.
Discussion, 199.

T

Tatnall, F. G.
Discussion, 814.
Taylor, T. S.
Discussion, 614.
Templin, R. L.
Ductility Testing of Aluminum and Aluminum Alloy Sheet, 239.
Discussion, 199.
Thomson, K. B.
Developments in the Quantitative Analysis of Solutions by Spectroscopic Means, 301.
Thum, Ernest E.
Corrosion-Resisting Steels. Summary of Proceedings of the Pittsburgh Regional Meeting—Symposium on High-Strength Constructional Metals, 1.
Discussion, 76.

Thurston, R. R.
Discussion, 539.
Tour, Sam.
Discussion, 259, 291.
Towne, R. W.
The Rate of Reaction of Sodium Sulfite with Oxygen Dissolved in Water, 687.
Discussion, 696.
Traxler, R. N.
Increase in Viscosity of Asphalts with Time, 544.
Measurement of High Viscosity—a Rapid Method, 518.
The Susceptibility of Asphalts to Temperature Change, 531.
Discussion, 539, 543, 551.

V

Van Horn, Kent R.
The Constitution of Alloys. Summary of Proceedings of Symposium on Radiography and X-ray Diffraction Methods, 3.
Vokac, Roland.
Compression Testing of Asphalt Paving Mixtures, 552.

W

Walker, A. C.
Discussion, 614.
Weiss, Henri.
Discussion, 589.
Weiss, J. M.
Discussion, 512.
Welborn, J. Y.
Discussion, 508.
Welcker, W. A., Jr.
Damage and Overstress in the Fatigue of Ferrous Materials, 118.
White, A. E.
Influence of Time at 1000 F. on the Characteristics of Carbon Steel, 139.
White, Alfred H.
Determination of Dissolved Oxygen in Boiler Feed Water, 697.
Discussion, 720.
Wilson, Raymond.
Discussion, 326.
Wilson, R. L.
Influence of Time at 1000 F. on the Characteristics of Carbon Steel, 139.
Wilson, Wilbur M.
Applications of the Wedge Extensometer, 807.
Wishart, H. B.
Slow-Bend and Impact Tests of Notched Bars at Low Temperatures, 110.
Discussion, 136.
Withey, M. O.
Discussion, 102, 392.
Wohlgemuth, G. F.
Failure of Heat-Treated Steel Wire in Cables of the Mt. Hope, R. I., Suspension Bridge, 21.
Woolf, D. O.
The Cone Method for Determining the Absorption by Sand, 411.
Discussion, 425.

Z

Zieme, C. H.
Discussion, 650.